

New England Biolabs Certificate of Analysis

Product Name: AMV Reverse Transcriptase
Catalog #: M0277S/L
Concentration: 10,000 units/ml
Unit Definition: One unit is defined as the amount of enzyme required to incorporate 1 nmol of dTTP into an acid-insoluble form in 10 minutes at 37°C.
Lot #: 0211712
Assay Date: 12/2017
Expiration Date: 12/2019
Storage Temp: -20°C
Storage Conditions: 200 mM KPO₄ , 2 mM DTT, 0.2 % Triton®X-100, 50 % Glycerol, (pH 7.2 @ 25°C)
Specification Version: PS-M0277S/L v1.0
Effective Date: 31 Jan 2018

Assay Name/Specification (minimum release criteria)	Lot #0211712
Endonuclease Activity (Nicking) - A 50 µl reaction in AMV Reverse Transcriptase Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 50 units of AMV Reverse Transcriptase incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
Exonuclease Activity (Radioactivity Release) - A 50 µl reaction in AMV Reverse Transcriptase Reaction Buffer containing 1 µg of a mixture of single and double-stranded [³ H] <i>E. coli</i> DNA and a minimum of 50 units of AMV Reverse Transcriptase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Non-Specific DNase Activity (16 Hour) - A 50 µl reaction in NEBuffer 2 containing 1 µg of T3 DNA in addition to a reaction containing Lambda-HindIII DNA and a minimum of 10 units of AMV Reverse Transcriptase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
RNase Activity Assay (4 Hour Digestion) - A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µl of AMV Reverse Transcriptase is incubated at 37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	Pass



Authorized by
Derek Robinson
31 Jan 2018



Inspected by
Tony Spear-Alfonso
16 Feb 2018

